

Septic System Alternative Treatment Technologies

For homes and businesses outside areas served by large sewer systems, sewage is treated and dispersed into the soil by septic systems. The primary components are a septic tank that collects and treats waste and a drainfield to capture, disperse and filter treated waste.

Some locations require additional treatment prior to dispersal into the drainfield due to smaller lot size, shallow water tables or soil limitations.

In many cases, you can meet state requirements for “onsite” septic waste disposal by installing what Oregon administrative rules call an “alternative treatment technology.” Alternative treatment technologies or “ATTs” are devices that can be connected to a standard septic system and are designed to provide additional treatment in order to protect your health and the environment.

How do I find out about alternative treatment technologies?

Prior to 2005, the only alternative treatment option for property owners was the sand filter. Now, many alternatives are available.

Alternative treatment systems are categorized into two levels:

Treatment Standard 1

These systems require a greater separation to a permanent water table than traditional sand filters because the treated waste will be higher in bacteria. The soil layer above the water table must be able to provide adequate filtration to protect groundwater and in many cases drinking water sources.

Treatment Standard 2

These systems may be used in place of a sand filter. Systems that fall into this category disinfect and, like sand filters, have demonstrated an ability to reduce nitrogen.

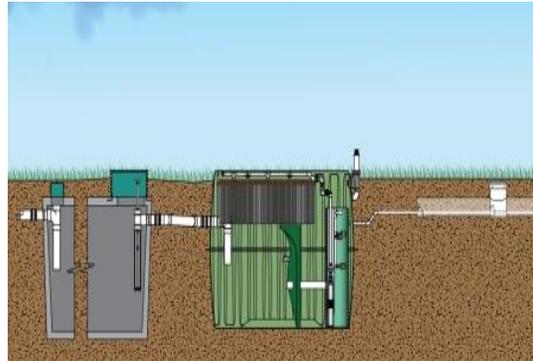
When is alternative treatment required?

An alternative treatment technology system is required due to smaller lot size, shallow water tables or soil limitations.

Prior to construction of your septic system, an inspector will conduct a site evaluation to determine the type of system you need based on

site conditions and proposed use of the property. In addition, your inspector can identify the treatment standard your lot requires.

This information will be captured in a site evaluation report.



ATTs are placed after a septic tank to utilize more efficient aerobic bacteria in the wastewater by introducing aeration (and oxygen) to the treatment process before sending it to a drainfield for final treatment and dispersal. (Image courtesy of Orenco Systems, Inc)

Other good reasons to choose alternative treatment

A property owner may elect to install an alternative system instead of a standard system in order to take up less space on the lot. Many people choose alternative treatment options because they produce cleaner effluent than a standard system which provides additional protection for nearby drinking wells and groundwater.

Additional requirements for alternative treatment technologies

Owners of an alternative treatment technology system must have an operation and maintenance service contract with a certified maintenance provider. The contract must be maintained for the life of the system.

The maintenance provider or homeowner must submit an operation and maintenance report annually with a \$60 fee to the appropriate permitting authority, either DEQ or the local county (*this fee may vary by county*).



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Other considerations

ATTs provide a high level of treatment to wastewater. The processes to treat wastewater may include one or more of the following: blowers, compressors, pumps, floats, and switches. Don't neglect these systems! Like a car or HVAC system, preventive maintenance avoids costly repairs.

These technologies vary on installation and operational (energy and maintenance) costs. Do your homework.

Sludge will settle at the bottom of the tank that houses the alternative treatment system or in a connected recirculation tank. If this accumulated sludge is not removed by a licensed pumper it can end up in the drainfield.

How do I find a maintenance provider?

A list of qualified maintenance providers is available from the distributor of the system you

purchase. Each vendor or manufacturer of alternative treatment technology distributed in Oregon must train local installers and maintenance providers to ensure proper installation and their systems receive the appropriate maintenance.

In addition, DEQ certifies maintenance providers to ensure that persons working on alternative treatment technology systems are qualified. A list of [certified maintenance providers](#) is available on DEQ's website.

Alternative Formats

Alternative formats of this document can be made available. Contact DEQ's Office of Communications & Outreach for more information at (503) 229-5696.

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